

## Shady Grove Sewer Extension Derwood, MD



### PROJECT OVERVIEW AND CHALLENGES

Bradshaw Construction was contracted to install a 182' x 48" RCP tunnel for a sewer extension project in Derwood, MD, after the original subcontractor was unable to install the tunnel with a 36" SBU. The 60" OD tunnel was installed underneath a road and highly sensitive 36" and 48" PCCP water transmission lines with minimal clearances. The initial SBU attempt made it 70' in, requiring Bradshaw to backfill the exposed 70' x 36" tunnel prior to commencing microtunnel operations. Once tunneling operations were completed, 16" DIP was installed and backfilled. Major challenges on the project included maintaining line and grade through the transition from the native rock and the backfilled 36" tunnel. Extensive monitoring for both settlement and vibrations on the utilities was also required. Ultimately, the tunnel was installed on line and grade with no impact to the road or utilities.



### PROJECT INFORMATION - 611

**OWNER:**  
EYA, LLC  
Adam Hayes  
301-634-8653

**ENGINEER:**  
WSSC Water  
Don Owens  
301-206-7368

**CONTRACTOR:**  
W.F. Wilson & Sons, Inc.

**COMPLETION DATE:**  
11/13/2020

**GEOLOGY:**  
Rock

**EXCAVATION METHOD:**  
Herrenknecht AVN-1200 MTBM

**MINING DIMENSIONS:**  
182' x 60" Ø (48" RCP)

**FINAL LINING:**  
16" DIP

**FOR MORE INFORMATION:**  
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Refer to Project 611